

market power. However, they again found that, under the original specification, higher levels of market concentration, if anything, reduced spot prices, but that when the specification was changed to correct for endogeneity, market structure appeared to have no significant effect on prices.

However, even Fournier and Martin's 1983 results have not gone unchallenged. In particular, Bloch and Wirth¹⁸ have criticized the methodology they used, arguing that:

[t]he hedonic model [used by Fournier and Martin] makes it reasonable to consider television stations in different viewing markets to be competing for the same advertising dollars so that the market is potentially very competitive. An oligopoly model is required if the product is access to a particular viewing audience, since broadcasters are always limited in number locally. [Bloch and Wirth (1989) at 155]

Therefore, Bloch and Worth tested an oligopoly model against the one used by Fournier and Martin (1983). In contrast to Fournier and Martin, they found that concentration among local commercial broadcast stations has a large (and statistically very significant) effect on prices.

Bloch and Worth's results undermine the empirical support for the NISS's conclusions that eliminating the Rep Rule could not raise spot advertising rates and might even be pro-competitive. Indeed, the lack of evidence that O&Os reduce prices, combined with the Block and Worth finding that an increase in local concentration raises price, indicates that elimination of the rule is, on balance, likely to raise prices if networks represent a significant

¹⁸ Michael O. Wirth and Harry Bloch, "The Broadcasters: The Future Role of Local Stations and the Three Networks", in Eli M. Noam (ed) Video Media Competition: Regulation, Economics and Technology, Columbia University Press, 1985, and Harry Bloch and Michael O. Wirth "Concentration and the Price of Local Advertising Time" in Leonard W. Weiss (ed) Concentration and Price, The MIT Press, 1989 [hereafter Bloch and Wirth (1989)].

share of their affiliates.¹⁹ Further, eliminating the Rep Rule would not lead to the same efficiencies that allegedly flow from vertical integration between networks and stations, and therefore cannot serve to reduce costs and prices to an equal degree.

B. POSITIONS OF THE PARTIES.

Because the positions taken by the affected parties provide a second type of evidence that can be used to predict the effects of eliminating the Rep Rule,²⁰ we examine those positions for consistency with each of the potential motives identified by the NISS.

The affiliates' strong support for retention of the rule is consistent with the market power hypothesis and/or the hypothesis that network representation would allow the networks to better discriminate among affiliates and thus increase network bargaining power. However, it is inconsistent with the hypotheses that the networks are more efficient than independent reps or that the networks would simply increase competition in the rep market. The affiliates would have no reason to oppose being represented by the networks if the networks would

¹⁹ Note that if the networks would not represent a significant share of their affiliates if the Rule were eliminated, it is difficult to argue that the Rule could currently be imposing any significant cost in terms of efficiencies foregone.

²⁰ It might be argued that opposition by the affiliates or by advertisers is irrational or not in their own best interest. It is difficult, however, to rely on irrationality to explain consistent behavior. As a former Assistant Attorney General for Antitrust has noted:

Although all of the people make mistakes some of the time and some of the people make mistakes all the time, a persistent pattern of behavior which is exhibited by a large fraction of a population of significant size must be regarded as reflecting a preference held by actors and cannot accurately be attributed to persistent error. The pattern is seen as strong evidence of revealed demand for the results which the behavioral patterns produce. [William Baxter, "The Political Economy of Antitrust", in Robert D. Tollison (ed) The Political Economy of Antitrust: Principal Paper by William Baxter, Lexington Books, 1979, at 4.]

simply represent them better or at lower costs than independent reps.

While the affiliates' position is inconsistent with the argument that the only effect of eliminating the rule would be to increase efficiency, their position alone does not provide evidence that advertisers will be harmed. Specifically, the affiliates could support keeping the Rep Rule only because it prevents the networks from extracting additional profits at the expense of the affiliates. The position of the advertisers, however, would be illuminating. On the one hand, if the Rep Rule merely prevents efficiencies from being realized, advertisers should support its elimination. On the other hand, if elimination of the Rule is likely to enhance market power and raise advertising prices, then advertisers should support its continuation. Finally, if the Rule simply affects the distribution of earnings between affiliates and their networks, advertisers should be largely indifferent to whether it remains in effect.

The Commission should, therefore, give special weight to the views of advertisers. If our understanding of their position is confirmed and accepted by the Commission, it would appear to remove any remaining ambiguity regarding the effect from eliminating the Rule.

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Graduate: Industrial Organization, Economic Development and Planning, Microeconomic Theory, International Trade, International Finance, Economic Theories of Behavior, Applied Microeconomics.

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Grants

National Science Foundation. Grant title: "Income Maximizing in Choice and Rate Effects," 1988 - 1991.

National Science Foundation. Grant title: "Application of Economic Theory to Operant Schedule Effects," 1985 - 1987.

National Science Foundation. Grant title: "Income and Choice," 1983 - 1985.

Professional Activities

Referee, *American Economic Review*, *The Bell Journal of Economics/Rand Journal*, *Economic Inquiry*, *Industrial Organization Review*, *Journal of Industrial Economics*, *Journal of Law and Economics*, *Journal of Political Economy*, *Quarterly Journal of Economics*, *Southern Economic Journal*.

Member, Editorial Board, *Journal of Business Economics*.

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Languages

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Publications

"Riding the Wave: Exclusionary Practices in Markets for Microprocessors Used in IBM-Compatible Personal Computers," Conference and Festschrift in Honor of Merton J. Peck, Yale University, September 30, 1994, and *Journal of the Economics of Business*, forthcoming, with Robert W. Wilson.

FREDERICK R. WARREN-BOULTON

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- "The Economics of Intellectual Property Protection for Software: The Proper Role for Copyright," American Council on Interoperable Systems, Washington, D.C., June 1994, and *StandardView: ACM Perspectives on Standardization*, forthcoming, with Kenneth Baseman and Glenn Woroch.
- "Microsoft Plays Hardball: Use of Nonlinear Pricing and Technical Incompatibility to Exclude Rivals in the Market for Operating Software," Columbia Institute for Tele-Information Seminar on Sustaining Competition in Network Industries through Regulating and Pricing Access, Columbia Business School, November 5, 1993, and *The Antitrust Bulletin* 40-2 (Summer 1995), pp.265-315, with Ken Baseman and Glenn Woroch.
- "Copyright Protection of Software Can Make Economic Sense," *The Computer Lawyer*, 12 (February 1995), pp. 10, 18-28, with Kenneth C. Baseman and Glenn Woroch.
- "Exclusionary Practices in High-Technology Industries," *The St. Louis Bar Journal*, 16 (Summer 1994), pp. 28-34.
- "Monsanto v. Spray-Rite: Resale Price Maintenance Reexamined," in *The Antitrust Revolution: The Role of Economics*, John E. Kwoka and Lawrence J. White, eds.; Scott, Foresman and Company, Glenview, Illinois, second edition, 1994.
- "A Commentary on the 1992 U.S. Merger Guidelines," *International Merger Law*, 22 (June 1992), pp. 14-19.
- "The Use of Stock Market Returns in Antitrust Analysis of Mergers," *Review of Industrial Organization*, 7-1 (1992), pp. 1-11, and *Economic Analysis Group Discussion Paper #88-1*, January 1988, with Robert H. McGuckin and Peter Waldstein.
- "Implications of U.S. Experience with Horizontal Mergers and Takeovers for Canadian Competition Policy," in *The Law and Economics of Competition Policy*, Frank Mathewson, Michael Trebilcock and Michael Walker, eds.; The Fraser Institute, Vancouver, B.C., 1990.
- "Maricopa and Maximum-Price Agreements: Time for a New Legal Standard?" *Journal of Health Economics*, 7 (June 1988), pp. 185-190.

FREDERICK R. WARREN-BOULTON

Page 5

"Maximizing Present Value: A Model to Explain Why Moderate Response Rates Obtain on Variable-Interval Schedules," *Journal of the Experimental Analysis of Behavior*, 49 (May 1988), pp. 331-338, with Alan Silberberg and Toshio Asano.

"Sources of the 'Crisis' in Liability Insurance: An Economic Analysis," in *Yale Journal of Regulation*, 5 (Summer 1988), pp. 367-395; *Economic Analysis Group Discussion Paper #88-2*, February 1988; and *An Update on the Liability Crisis: Tort Policy Working Group*, U.S. Government Printing Office: 181-487:60075, March 1987, with Richard N. Clark and David D. Smith.

"State and Federal Regulation in the Market for Corporate Control," *The Antitrust Bulletin*, 32 (Fall 1987), pp. 661-691, and *Economic Analysis Group Discussion Paper #86-4**, January 1986, with Margaret E. Guerin-Calvert and Robert H. McGuckin.

"Income and Choice Between Different Goods," *Journal of the Experimental Analysis of Behavior*, 48 (September 1987), pp. 263-275, with Alan Silberberg and David Shurtleff.

"Inferior-Good and Giffen-Good Effects in Monkey Choice Behavior," *Journal of Experimental Psychology: Animal Behavior Processes*, 13 (1987), pp. 292-301, with Alan Silberberg and Toshio Asano.

"Efficiencies, Failing Firms, and Alternatives to Merger: A Policy Synthesis," *The Antitrust Bulletin*, 31 (Summer 1986), pp. 431-450, and *Economic Analysis Group Discussion Paper #86-14*, August 1986, with John Kwoka.

Oil Pipeline Deregulation: Report of the U.S. Department of Justice, U.S. Government Printing Office: 1986, 491-510:40159, May 1986, with Charles J. Untiet.

"Merger Policy and Enforcement at the Antitrust Division: The Economist's View," *Antitrust Law Journal*, 54 (Spring 1985), pp. 109-115.

"Reanalysis of the Equation for Simple Action," *Journal of the Experimental Analysis of Behavior*, 43 (March 1985), pp. 265-277, with Alan Silberberg, Michael Gray and Randolph Ollom.

"Considering the Effects of Financial Incentive and Professional Ethics on 'Appropriate' Medical Care," *Journal of Health Economics*, 3 (December 1984), pp. 223-237, with Robert Woodward.

FREDERICK R. WARREN-BOULTON

Page 6

Deficits and Dollars: The Effects of Government Deficits in an International Economy. Center for the Study of American Business, Contemporary Series 3, 1982.

"Physician Productivity, Remuneration Method, and Supplier-Induced Demand," in *Issues in Physician Reimbursement*, N.T. Greenspan (ed.), HCFA, 1981, pp. 115-134, with Robert Woodward.

"Paying the Doctor: A Model of Work-Leisure Decisions under Alternative Remunerations," *Proceedings of the American Statistical Association*, 1979, with Robert Woodward.

Vertical Control of Markets: Business and Labor Practices. Ballinger Publishing Company, Cambridge, Mass., 1978.

"Vertical Control by Labor Unions," *American Economic Review*, 67 (June 1977), pp. 309-322. Reprinted as Publication Number 17, Center for the Study of American Business, November 1977.

"Vertical Control with Variable Proportions," *Journal of Political Economy*, 82 (July - August 1974), pp. 783-802.

Preliminary Survey of Jamaican Management Manpower: Resources and Requirements. Jamaican Institute of Management, 1969.

Conference, Seminar, Working and Discussion Papers

"Implementing Competitive Rules Joint Ventures for Railroads," IBRD, April, 1995.

"Implications of the United States Experience with Regulation and Antitrust for Competition Policy in Countries in Transition from Centrally Planned Economies to Market Economies," IBRD/EDI/USAID Seminar on Microeconomics, Vienna, Austria, July 1993.

"Privatization and Regulation in the Restructuring of Electric Utilities in Eastern Europe," IBRD Conference, Prague, The Czech Republic, September 1993.

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"Regulatory Alternatives for FERC Following the Energy Policy Act of 1992," The Federal Energy Bar Association Mid-Year Meeting, November 19, 1992.

"The Economics of Credit Card Interest Rate Caps," Seminars at the Economic Analysis Group, U.S. Department of Justice, September 29, 1992; the Board of Governors of the Federal Reserve System, October 7, 1992; and the D.C. Bar Association, November 19, 1992.

"Straws in the Bottleneck: A Proposal for Efficient Network Interconnection," presented at the Tenth Biennial Conference of the International Telecommunications Society, Cannes, France, June 1992; *Journal of Regulatory Economics* Editors' Conference, San Diego, October 1992, with John Woodbury and Glenn Woroch.

"Economic Principles of Penalties for Antitrust Violations, and the Role of the Economist in Corporate Sentencing," Corporate Sentencing Under the Federal Sentencing Guidelines for An Antitrust Defendant, The Federal Bar Association, Antitrust and Trade Regulation Section, May 1992.

"The State of Antitrust in 1991: A Kindler, Gentler Antitrust?," The CATO Institute Conference, 1991, with Steve Calkins.

"Economic Analysis and Policy Implications of the Financial Interest and Syndication Rule," Telecommunications Policy Research Conference, October 1990, with John Woodbury.

"The Design and Evaluation of Competitive Rules Joint Ventures for Mergers and Natural Monopolies," American Enterprise Institute conference on Policy Approaches to the Deregulation of Network Industries, October 1990, and at the American Economic Association Meetings, December 1989, with John Woodbury.

"Regulation and the Partially Monopolized Network: Lessons from Telecommunications," American Enterprise Institute conference on Policy Approaches to the Deregulation of Network Industries, October 1990, with Roger Noll.

"Price Regulation and Common Carrier Regulation," AEI Conference on Oil Pipeline Deregulation, American Enterprise Institute.

"Regulation of New Crude-Oil Pipelines: Natural Monopoly and Information Externalities," AEI Conference on Oil Pipeline Deregulation, American Enterprise Institute.

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"Economic Theory as the Missing Link in the Merger Guidelines," American Bar Association Antitrust Section Spring Meeting, March 1990.

"Testing the Structure-Competition Relationship on Cross-Sectional Firm Data," *Economic Analysis Group Discussion Paper #88-6*, May 1988, and at the Southern Economic Association Meetings, November 1986, with Donald M. Brown.

"Deterring Criminal Antitrust Behavior: Sanctions versus Structure," Stanford University Conference, June 1987.

"Deregulation of Electric Power Generation," New Mexico State University Conference, September 1986, and Edison Electric Institute, April 1987.

"Do Successful Tender Offers Benefit Bondholders?" Southern Economic Association Meetings, November 1986, with Catherine Benham, Donald M. Brown and Susan E. Woodward.

"Professional Ethics and Financial Incentives: 'Appropriate' Medical Care," *Washington University Department of Economics Working Paper #40*, May 1982, with Robert Woodward.

"Hospital Care Expenditure Inflation: Crisis or Consumption?" *Washington University Department of Economics Working Paper #43*, December 1982, with Robert Woodward and Walter Chien.

"Transfer Pricing within U.S. Corporations," Sixth U.S.-Soviet Economic Symposium; Alma-Ata, Kazakhstan, U.S.S.R., May - June, 1981.

"The Impact of Automobile Mileage Standards," Western Economic Association Meetings, 1979, with Michael Smirlock.

"The Effect of Factor-Augmenting Technical Change on Factory Demand, and the Response by Factor Suppliers," Western Economic Association Meetings, October 1977.

"Vertical Integration in Telecommunications," Telecommunications Policy Research Conference, April 1974.

Other Papers

"Critical Loss and Critical Elasticity: Their Derivation and Use in Market Definition for Mergers," November 1994.

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"When Nominally Monopolistically-Competitive Firms are Really Perfectly Competitive: Going First-Class on the Paris Metro," July 1986.

"Mandatory Energy Performance Standards and Residential Energy Demand," 1981, with Alan Rockwood and Richard Adams.

"The Effects of Endogenous Quality Change on Demand and Costs," October 1977.

Testimony, Depositions, Commissioned Studies, and Government Consulting

U.S. Department of Justice, Antitrust Division: Expert witness in United States of America v. Engelhard Corporation, Floridin Company, U.S. Borax Inc., U.S. Silica Inc. Case No. 6:96-CV-45 (WLS), August 1995.

City of Los Angeles: Declaration in Air Transport Association of America, et al., v. City of Los Angeles, City of Los Angeles Department of Airports and Los Angeles Board of Airport Commissioners, Docket No. 50176, March 1995.

AT&T: (a) Direct Testimony and Deposition in State of Indiana, Indiana Utility Regulatory Commission, Cause No. 397051994, April 1994. (b) Position Paper on Docket No. 94-07-02: Development of the Assumptions, Tests, Analysis and Review to Govern Telecommunications Service Reclassifications in Light of the 8 Criteria Set Forth in Section 8 of Public Act 94-83. State Of Connecticut, Department of Public Utility Control, October 1994. (c) Comments on the Position Papers on Docket No. 94-07-02. State Of Connecticut, Department of Public Utility Control, November 1994.

The Bon-Ton Stores, Inc.: Declaration in The Bon-Ton Stores, Inc. v. The May Department Stores Company, McCurdy & Company, Inc., and Wilmorite, Inc., Civil Action No. 94-CV-6454L, November 1994.

Cyrix Corporation: Deposition in Cyrix Corporation v. Intel Corporation, December 1993.

Thermadyne Industries: Deposition in Thermadyne Industries, Inc. and Coyne Cylinder Co. v. K.C. Cylinder et al., December 1993.

IBRD (World Bank): (a) Privatization and Regulation in the Restructuring of Electric Utilities in Eastern Europe, September 1993; (b) Implications of the United States Experience with Regulation and Antitrust for Competition Policy in Countries in Transition from Centrally Planned Economies to Market Economies, July 1993.

Credit Card Coalition: "The Economics of Credit Card Interest Rate Caps," 1993, with Laurence H. Meyer.

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Coalition to Preserve the Financial Interest and Syndication Rule: (a) Testimony before the Federal Communications Commission, December 7, 1990, in the matter of Evaluation of the Syndication and Financial Interest Rules, MM Docket No. 90-162. (b) Submitted reports: "Economic Analysis and Policy Implications of the Financial Interest and Syndication Rule," June 14, 1990; "Reply Comments," August 1, 1990; "Economic Analysis and Policy Implications of the Financial Interest and Syndication Rule," January 24, 1991, with John Woodbury. (c) Declaration of Frederick R. Warren-Boulton, August 7, 1992, Exhibit 7, Comments of the Coalition to Preserve the Financial Interest and Syndication Rule on Proposed Modification of Network Consent Decrees. In United States of America v. CBS, Inc. Civil No. 74-3599-RJK, United States of America v. American Broadcasting Companies, Inc. Civil No. 74-3600-RJK, and United States of America v. National Broadcasting Company, Inc. Civil No. 74-3601-RJK.

California Public Utility Commission, Division of Ratepayer Advocacy: Proposed merger of Southern California Edison Company and San Diego Gas and Electric Company, July 1990.

Altai, Inc.: Expert witness in Computer Associates, Inc. v. Altai, Inc., April 1990.

NFL Players Association: Deposition in Marvin Powell v. National Football League, September 1989.

Consolidated Aluminum Corporation: Deposition in Indal, Inc. v. Consolidated Aluminum Corp., April 1983.

U.S. Department of Justice, Antitrust Division: (a) Regulation of oil pipelines, August 1983; (b) Expert witness in U.S. v. AT&T, 1981.

Battelle, Pacific Northwest Laboratories. Analyses of bidding for offshore oil leases and of the effects of Building Energy Performance Standards on energy demand, September 1979 -1981.

U.S. Senate Commerce Committee, Senator Danforth presiding: Testimony on corporate average fuel economy (CAFE) standards, November 15, 1979.

State of Missouri, Office of the Public Counsel: Expert witness on electric utility rate structures, 1978.

Federal Trade Commission: Study on Vertical Distribution Arrangements, January 1, 1977 - August 1, 1978.